Application No.: 10/807363 Docket No.: CL2328USNA

Page 2

Amendments to Claims

- 1. (Currently Amended) A process comprising:
 - a. forming a donor element comprising:
 - i. a substrate; and
 - ii. a transfer layer, wherein the transfer layer comprises a first layer and a second layer, the first layer comprises a [fragile or thermally sensitive] material selected from organic semi-conductors, inorganic semi-conductors, light-emitting polymers, and light-emitting small molecules, and the second layer comprises a protective layer located between the substrate and the [fragile or thermally-sensitive] first layer;
 - b. placing the <u>first layer of the</u> transfer layer of the donor element in contact with a receiver element; and
 - c. exposing selected areas of the donor element to laser radiation [to transfer portions of the transfer layer] wherein the transfer layer of the donor element is transferred onto [a] the receiver element to form a positively imaged, patterned multilayer structure.
- 2. (Original) The process of Claim 1, wherein the donor element further comprises an ejection layer between the transfer layer and the substrate.
- 3. (Original) The process of Claim 2, wherein the ejection layer comprises an organic material with a decomposition temperature less than 275°C.
- 4. (Original) The process of Claim 3, wherein the ejection layer is selected from the group consisting of nitrocellulose, polyvinylchloride, chlorinated polyvinylchloride, polymethylmethacrylate and polymethylmethacrylate copolymers
- 5. (Original) The process of Claim 2, wherein the ejection layer further comprises a radiation-absorbing dye.
- 6. (Original) The process of Claim 5, wherein the radiation absorbing dye is an infrared-absorbing dye.
- 7. (Original) The process of Claim 6, wherein the infrared-absorbing dye is selected from the group consisting of 2-[2-[2-chloro-3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-ylidene)ethylidene]-1-cyclopenten-1-yl]ethyenyl]-1,3,3-trimethyl-3H-indolium, salt with trifluoromethane sulfonic acid (1:1); 2-[2-[2-chloro-3-[[1,3-dihydro-1,1-dimethyl-3-(4-sulfobutyl)-2H-benz[e]indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-1,1-dimethyl-3-(4-sulfobutyl)-1H-benz[e]indolium, inner salt, free acid; and 4-[[3-[[2,6-

Application No.: 10/807363 Docket No.: CL2328USNA

Page 3

- bis(1,1-dimethylethyl)-4H-thiopyran-4-ylidene]methyl]-2-hydroxy-4-oxo-2-cyclobuten-1-ylidene]methyl]-2,6-bis(1,1-dimethylethyl)-thiopyrylium, inner salt.
- 8. (Orginal) The process of Claim 1, wherein the substrate of the donor element is a flexible film.
- 9. (Original) The process of Claim 8, wherein the flexible film comprises a polymer selected from the group consisting of polyesters, polyether sulfone, polyvinyl chloride, polyimides, poly(vinyl alcohol-co-acetal), polyethylene, and cellulose esters.
- 10. (Original) The process of Claim 1, wherein the fragile or thermally sensitive material comprises an organic electroactive material.
- 11. (Original) The process of Claim 10, wherein the organic electroactive material comprises a light-emitting polymeric material or a light-emitting small molecule, the protective layer comprises a charge injection layer, and the receiver element comprises a substrate and an anode layer.
- 12. (Original) The process of Claim 11, wherein the anode layer comprises indium tin oxide.
- 13. (Original) A polymer light-emitting diode manufactured according to the process of Claim 12.
- 14. (Original) The process of Claim 1, wherein the fragile or thermally sensitive material comprises an organic or inorganic semiconductor and the protective layer comprises a dielectric material.
- 15. (Original) The process of Claim 14, wherein the organic semiconductor is selected from the group consisting of pentacene, sexithiophene, tetracene, polythieneylenevinylene, thiophene oligomers, benzothiophene dimers and polyacetylenes.
- 16. (Original) The process of Claim 14, wherein the dielectric material is selected from the group consisting of polyhydroxystyrene, polyvinylphenol, polyvinylpyridine, glass resin, fluorinated copolymers and methacrylic copolymers.
- 17. (Original) The process of Claim 14, wherein the receiver element comprises a substrate and a patterned conductive layer.
- 18. (Original) The process of Claim 17, wherein the substrate of the receiver element comprises mineral-filled polyester, ivory paper or spunbonded polyelefin.
- 19. (Original) The process of Claim 14, wherein the receiver element further comprises an adhesive layer.

Application No.: 10/807363 Docket No.: CL2328USNA

Page 4

- 20. (Original) The process of Claim 19, wherein the adhesive layer comprises a polymer selected from the group consisting of polycarbonates; polyurethanes; polyesters; polyvinylchloride; styrene/acrylonitrile copolymers; poly(caprolactone); vinylacetate copolymers with at least one of ethylene and vinyl chloride; (meth)acrylate homopolymers; (meth)acrylate copolymers; and mixtures thereof.
- 21. (Original) The process of Claim 14, wherein the donor element further comprises an ejection layer between the transfer layer and the substrate.
- 22. (Original) The process of Claim 14, wherein the donor element further comprises a heating layer between the substrate and the transfer layer.
- 23. (Original) The process of Claim 22, wherein the heating layer comprises a thin layer of Ni, Al or Cr.
- 24. (Original) The process of Claim 17, wherein the patterned conductive layer comprises source and drain for a transistor.
- 25. (Original) The process of Claim 24, wherein the patterned conductive layer further comprises interconnects.
 - 26. (Currently Amended) A thermally imageable donor element, comprising:
 - a. a substrate;
 - b. a heating layer; and
 - c. [a protective layer; and] a transfer layer comprising a first layer and a second layer, the first layer comprises a material selected from organic semi-conductors, inorganic semiconductors, light-emitting polymers, and light-emitting small molecules, and the second layer comprises a protective layer located between the substrate and the first layer.
 - [d. a fragile or thermally sensitive layer.]
 - (Currently Amended) The thermally imageable donor element of Claim 26, wherein;

the substrate is a flexible film comprising a polymer selected from the group consisting of polyesters, polyether sulfone, polyvinyl chloride, polyimides, poly(vinyl alcohol-co-acetal), polyethylene, and cellulose esters;

the heating layer comprises a thin layer of Ni, Al, or Cr;

the protective layer comprises a dielectric material or a charge injection material; and

the [fragile or thermally sensitive] <u>transfer</u> layer [comprises an organic semiconductor, or a light-emitting polymer, or a light-emitting small molecule].

PAGE 618 * RCVD AT 3191/2006 1:46:29 PM [Eastern Standard Time] * SVR:USPTO-EFXRF-316 * DNIS:2738300 * CSID:302 892 7949 * DURATION (mm-ss):02-12

Application No.: 10/807363 Docket No.: CL2328USNA

Page 5

28. (Currently Amended) The donor element of Claim 27, wherein the [fragile or thermally-sensitive layer] <u>first layer of the transfer layer</u> is deposited on the [protective] <u>second</u> layer of the transfer layer via evaporation or casting from solution.